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10/538,862	01/08/2008	**Anders Edvard Trell**	31555-2006	5771

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EXAMINER	
HOLTON, STEVEN E	
ART UNIT	**PAPER NUMBER**
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/538,862	TRELL, ANDERS EDVARD	
	Examiner	Art Unit	
	Steven E. Holton	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 20 recites a computer readable media for storing a computer program for execution on a computer. Under the current guidelines the computer readable media is considered as non-statutory because it can read on both non-transitory and transitory subject matter. Limiting the computer readable media to only non-transitory embodiments will overcome this rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 8-11, and, 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over White (USPN: 5457480) in view of Olsen et al. (USPN: 6137479), hereinafter Olsen.

Regarding claim 1, White discloses a device for inputting data to a computer system including "a graphical location data entry portion (Fig. 2A, element 14), including at least one click button (Fig. 2C, element 204), operative for inputting graphical location data to a computer having a graphical display (Fig. 1, elements 12 and 24; col. 4, lines 7-23)". White also discloses a data entry portion, including a plurality of keys (Fig. 2C, element 206) operative for inputting data to a computer including enactment of one or more keys (col. 4, lines 23-35).

However, White discloses a small keypad only able for input of numerical data and not alphanumerical data.

Olsen discloses an input device including a position information generating element to produce coordinate information to be input to a computer and a keyboard area capable of producing alphanumeric information (col. 5, lines 33-42).

At the time of invention it would have been obvious to one of ordinary skill in the art to modify the teachings of White with the teachings of Olsen. The numerical

keyboard of White could be replaced with the alphanumeric keyboard of Olsen. The rationale would be to replace one type of keyboard with another keyboard with expected results. The modification would allow the mouse of White to produce alphanumeric data from the keyboard as described by Olsen. Thus, the combination of White and Olsen disclose the limitations of the invention described in claim 1.

Regarding claim 8, neither White nor Olsen disclose software for providing audible feedback to disclose an accepted input of alphanumeric data. The Examiner takes Official Notice that computer software to produce a sound to indicated a typed letter are well known in the art and at the time of invention it would have been a matter of design choice for one of ordinary skill in the art to include software to provide a audible sound to indicate an inputted character from a key press.

Regarding claim 9, White discloses the graphical location entry portion and the keyboard portions can be separately activated or deactivated by command functions (Fig. 3 shows activation of different elements; col. 4, lines 24-36 and lines 48-63).

Regarding claim 10, Olsen discloses at least two columns and two rows of keys (Fig. 2A, elements 64 are arranged in two rows and five columns).

Regarding claim 11, White discloses at least three columns and at least four rows of keys (Fig. 2C, element 206 has four columns and four rows).

Regarding claim 13, Olsen discloses at least 2 click buttons (Fig. 2A, element 28 has two buttons). White also discloses at least 2 click buttons (Fig. 2C, element 204).

Regarding claim 14, neither White nor Olsen discloses a scroll wheel. The Examiner takes Official Notice that scroll wheels are well known in the art of computer

mice. At the time of invention it would have been obvious to one of ordinary skill in the art that a scroll wheel could be included with the computer mouse described by Olsen and White to provide further input functions from the input device.

Regarding claims 15 and 16 Olsen discloses input ports connected to the input device and the input port could be wireless (Fig. 1, element 38; col. 4, lines 43-50).

Regarding claims 17 and 18, Olsen describes a power supply for the input device (Fig. 1, element "Power Supply"), but does not expressly disclose a rechargeable battery or a solar cell power source. The Examiner takes Official Notice that rechargeable batteries and solar power cells are well known in the art as power sources for portable or handheld devices. At the time of invention it would have been a matter of design choice for one of ordinary skill in the art to provide a rechargeable batter or solar power cell as the power supply for the input device described by Olsen and White.

Regarding claims 19 and 20, the claims are drawn to a method of operation and computer readable medium storing a program to execute the method steps and are considered together. White discloses operation including receiving information of enactment of at least one key on the device, converting the information into numeric data and transmitting the data to a computer application (co. 4, lines 24-36). Olsen discloses receiving information about button presses and converting the information into alphanumeric data (col. 5, lines 33-42). Therefore, it would have been obvious to operate the device of claim 1 using the combination of teachings from White and Olsen to receive button presses, convert the presses into alphanumeric information and transmit the alphanumeric data to a computer.

4. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over White in view of Olsen as applied to claim 1 above, and further in view of Tsubai (USPN: 6348878).

Regarding claim 2, as discussed above the combination of White and Olsen disclose all of the limitations except, simultaneous enactment of a combination of keys.

Tsubai discloses a chording keyboard that generates alphanumeric data based on simultaneous presses of two keys at the same time (abstract).

At the time of invention it would have been obvious to one of ordinary skill in the art to modify the teachings of White and Olsen with the teachings of Tsubai. The alphanumeric entry keyboard of White and Olsen could be modified to perform data entry when more than one key is pressed simultaneously based on the teachings of Tsubai. The motivation to include chording function with the keyboard would be to provide a keyboard with reduced size and usable by a single hand but providing a full range of alphanumeric functions (Tsubai; col. 1, lines 43-65; col. 2, lines 19-34). Thus it would have been obvious to make the keyboard of White and Olsen into a chording type keyboard described by Tsubai to increase the functionality of the keyboard while maintaining the small size of the input device. Thus, the combination of White, Olsen, and Tsubai disclose the input device described in claim 2.

Regarding claim 3, Tsubai discloses simultaneous activation of combinations of keys that are substantially adjacent keys and non-adjacent keys (Fig. 1, keys 16-19 are pressed at the same time as other keys to provide different alphanumeric functions,

these keys are substantially adjacent to other keys vertically, horizontally, and diagonally and are substantially non-adjacent to other keys of the keyboard.

5. Claims 4-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over White in view of Olsen as applied to claim 1 above, and further in view of Higginson (USPN: 6703963).

Regarding claim 4, as discussed above the combination of White and Olsen disclose all of the limitations except, the keyboard providing phrases and command functions as part of the alphanumeric information. Olsen only discloses characters and number information as part of the alphanumeric information.

Higginson discloses a keyboard capable of operating in different modes, the modes include input of characters, numbers, punctuation symbols, words, phrases, and other functions (Figs. 1, 5a-e, and 6; col. 9, lines 3-22).

At the time of invention it would have been obvious to modify the teachings of White and Olsen with the teachings of Higginson. The keyboard input system of White and Olsen could be modified to include a the ability to produce phrases, words, and other functions similar to the abilities of the keyboard of Higginson. The motivation would be to provide a multifunctional input device with programmable inputs based on the mode of operation of the device (Higginson; col. 2, lines 33-45). Thus, it would have been obvious to combine the teachings of White, Olsen, and Higginson to produce a device with expanded functionality of the keyboard input as described in claim 4.

Regarding claim 5, Higginson discloses different operating modes for alphanumerical data entry and that enactment of keys in different modes produces a mode specific set of data (Figs. 5a-e; col. 7, line 43 - col. 8, line 21).

Regarding claim 6, Higginson discloses ways of indicating the specific operating mode based on displayed information on the input device (Figs. 5a-e; the displayed characters and highlighted information changes based on the operating mode).

Regarding claim 7, White discloses using a light emitting diode for indicating operating modes (Fig. 2C, element 216; col. 3, lines 59-67).

Regarding claim 12, Higginson discloses at least one user programmable key (Fig. 5D; col. 8, lines 22-32).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wu (USPN: 5808568) discloses a computer mouse having a scroll wheel. Mori (USPN: 475268) discloses a computer mouse having a rechargeable battery. Nakamura et al. (USPN: 6801967) discloses a computer mouse having a solar cell for providing power to the device.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571)272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bipin Shalwala/
Supervisory Patent Examiner, Art Unit 2629

/Steven E Holton/
Examiner, Art Unit 2629
November 20, 2010